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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,494	07/10/2001	Peter M. Wild	3048.1000-002	5907

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EXAMINER

NGUYEN, SON T

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,494

Applicant(s)

WILD ET AL.

Examiner

Son T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-35,37-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1179151 (herein GB151) in view of US 3,295,254 (herein 254) .

For claims 1 & 10, GB151 teaches a method for injecting a fluid into a woody plant, the method comprising: (a) providing: (i) a fluid reservoir 10 for containing a fluid; (ii) a gas reservoir (page 3, left column, lines 6-24) for containing a gas; (iii) a needle 3 having a proximal end and a distal end, comprising: (1) an inner conduit (inherent in a needle for injecting fluid); (2) an outer surface; and (3) at least one aperture (inherent in a needle for injecting fluid) connecting the inner conduit and the outer surface and proximate to the point at said distal end; and (iv) a hand-held injector (as shown in figs. 1 & 2) connectable to the fluid reservoir and the gas reservoir, wherein the hand-held injector can push at least a portion of the fluid from the fluid reservoir with at least one piston 14 actuated by at least a portion of the gas from the gas reservoir without the gas contacting and mixing with the fluid (page 3, left column, lines 35-41, the fluid in cartridge 10 is separated from the air injected into the vessel 1), through the inner conduit of the needle and out of the at least one aperture; (b) inserting the needle into the woody plant; and (c) injecting, via the hand-held injector, at least a portion of the

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fluid from the fluid reservoir using at least a portion of the gas from the gas reservoir without the gas contacting and mixing with the fluid (page 3, left column, lines 35-41, the fluid in cartridge 10 is separated from the air injected into the vessel 1), through the inner conduit of the needle and out of the at least one aperture and into the woody plant; thereby injecting only the fluid into the woody plant. However, GB151 is silent about the needle being the type with a sealed tip.

254 teaches an apparatus for injecting liquids into trees in which he employs a needle 11 having a proximal end (fig. 3, end near refs. 21,17) and a distal end (fig. 3, end near ref. 12), an inner conduit 14, a sealed tip 12 terminating in a point at the distal end, an outer surface and at least one aperture 16 connecting the inner conduit and the outer surface and proximate to the point at the distal end. It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 with the needle with the above described features as taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 2, in addition to the above, 254 teaches injection to a tree. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the method as taught by GB151 as modified by 254 to a tree in order to treat the tree of disease.

For claim 3, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the method as taught by GB151 as modified by 254 to a palm tree, depending on a user's preference to do so in order to treat the palm tree of disease.

For claim 4, it would have been obvious to one having ordinary skill in the art at the time the invention was made to repeat the method of GB151 as modified by 254 on the same tree, depending on how bad the tree is in need of medicament, nutrients, fertilizer, pesticide, etc.

For claim 5, GB151 as modified by 254 (emphasis on GB151) teaches the fluid being a treatment for a disease condition (page 1, left column, lines 20-25).

For claim 6, GB151 as modified by 254 (emphasis on GB151) teaches the fluid being a treatment for an insect infestation (page 1, left column, lines 20-25).

For claims 7 & 8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a nutrient or a suspension as the preferred fluid in the method of GB151 as modified by 254 in order to provide the tree with proper nutrients/suspension.

For claim 9, it would have been obvious to one having ordinary skill in the art at the time the invention was made to insert the needle of the method of GB151 as modified by 254 into expansion tissue, depending on what area of the tree needs to be treated.

For claim 11, in addition to the above, 254 further teaches the at least one aperture 16 is at a forward angle such as 90° relative to the longitudinal axis of the needle (see fig. 3 of Schoonman). It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 as modified by 254 with the needle with the above described features as further taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 12, in addition to the above, 254 further teaches the angle of 90° which is about 50° to about 130° relative to the longitudinal axis of the needle. It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 as modified by 254 with the needle with the above described features as further taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 13, in addition to the above, 254 further disclose the angle of 90° which is about 60° to about 120° relative to the longitudinal axis of the needle. It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 as modified by 254 with the needle with the above described features as further taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the apertures of GB151 as modified by 254 angled at about 65° , since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claim 15, in addition to the above, 254 further disclose at least a portion of the outer surface of the needle between the point 12 and the at least one aperture 16 includes a taper (see fig. 3, the aperture 16 in consideration is the one near refs. 12,14). It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 as modified by 254 with the needle with the above described features

as further taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 16, in addition to the above, 254 further disclose the needle has a first portion from the proximal end to a shoulder point (fig. 3, shoulder point stops near refs. 16,14,12), wherein the outer surface of the first portion has a first taper (fig. 3, first taper occurs from proximal end where refs. 21,17 are located to the shoulder point), and a second portion from the shoulder point to the distal end (fig. 3, near ref. 12), wherein the second portion has a second taper (from shoulder point to the tip of the needle) which is substantially greater than the first taper. It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 as modified by 254 with the needle with the above described features as further taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 17, the second taper of GB151 as modified by 254 (emphasis on 254) appears to be in the range of about 10 degrees to about 50 degrees relative to the longitudinal axis of the needle; however, this is not certain. In any event, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the taper angle of GB151 as modified by 254 about 10° to about 50°, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claim 18, see claim 1.

For claim 19, see claim 6, esp. GB151, left column, lines 20-25.

For claim 20, GB151 as modified by 254 (emphasis on GB151) teaches air (page 3, left column, line 9).

For claim 21, GB151 teaches an apparatus for injecting a fluid into a woody plant, the method comprising: a fluid reservoir 10 for containing a fluid; a gas reservoir (page 3, left column, lines 6-24) for containing a gas; a needle 3 having a proximal end and a distal end, comprising: an inner conduit (inherent in a needle for injecting fluid); an outer surface; and at least one aperture (inherent in a needle for injecting fluid) connecting the inner conduit and the outer surface and proximate to the point at said distal end; and a hand-held injector (as shown in figs. 1 & 2) connectable to the fluid reservoir and the gas reservoir, wherein the hand-held injector can push at least a portion of the fluid from the fluid reservoir with at least one piston 14 actuated by at least a portion of the gas from the gas reservoir without the gas contacting and mixing with the fluid (page 3, left column, lines 35-41, the fluid in cartridge 10 is separated from the air injected into the vessel 1), through the inner conduit of the needle and out of the at least one aperture. However, GB151 is silent about the needle being the type with a sealed tip.

254 teaches an apparatus for injecting liquids into trees in which he employs a needle 11 having a proximal end (fig. 3, end near refs. 21,17) and a distal end (fig. 3, end near ref. 12), an inner conduit 14, a sealed tip 12 terminating in a point at the distal end, an outer surface and at least one aperture 16 connecting the inner conduit and the outer surface and proximate to the point at the distal end. It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 with the

needle with the above described features as taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 22, see claim 2.

For claim 23, see claim 3.

For claim 24, see claim 5.

For claim 25, see claim 6.

For claim 26, see claim 7.

For claim 27, see claim 8.

For claim 28, see claim 10.

For claim 29, see claim 11.

For claim 30, see claim 12.

For claim 31, see claim 16.

For claim 32, see claim 17.

For claim 33, in addition to the above, 254 teaches the at least one aperture 16 is located between the shoulder point and the proximal end. It would have been an obvious substitution of functional equivalent to substitute the needle of GB151 with the needle with the above described features as taught by 254, since it would perform the same function; i.e. to penetrate a tree so as to inject liquid into the tree.

For claim 34, see claim 1.

For claims 35 & 39, GB151 as modified by 254 discloses medicament, which some medicament are made out of some sort of herbal product. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use

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herbal product in the fluid of GB151 as modified by 254, depending on the type of tree requirement for certain type of medicament such as herbal product.

For claims 37 & 38, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the method as taught by GB151 as modified by 254 to a shrub, depending on the user's preference to treat a shrub of disease.

3. **Claims 36 & 40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gb151 as modified by 254 as applied to claims 1,18,21 above, and further in view of US 4,103,456 (herein 456). GB151 as modified by 254 is silent about the fluid being growth regulator. 456 teaches a method for treating trees in which they inject medicament such as fertilizer, growth regulator, hormone, etc. into the trees to treat the trees for disease (col. 4, lines 63-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a growth regulator as taught by 456 in the method of GB151 as modified by 254 in order to enhance tree growth.

Response to Arguments

4. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 703-305-0765. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Son T. Nguyen

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Primary Examiner
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